Practice: 315 - Herbaceous Weed Control

Scenario: #1 - Mechanical

Scenario Description:

Removal of herbaceous weeds of light infestations. The practice entails the removal of herbaceous weeds by the use of mower, brush hog, disc or other light equipment in order to reduce fuel loading and improve ecological site condition. Weed has exceeded desired levels based on ecological site potential. Typical unit is 40 acres.

Before Situation:

Area consist of excessive stands of herbaceous weeds degrading health and vigor of native herbaceous species promoting noxious and invasive species and degrading wildlife habitat.

After Situation:

Herbaceous weeds are removed to achieve the desirable plant community based on species composition, structure, density, and canopy cover or height. Ecological site condition is progressing in an upward trend, hydrology and plant health and vigor is returning to near normal levels, and improved wildlife habitat.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 40

Scenario Cost: $1,196.52 **Scenario Cost/Unit:** $29.91

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Mower, Bush Hog	940	Equipment and power unit costs. Labor not included.	Hour	$46.53	12	$558.36
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$34.05	2	$68.10
Labor						
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12”, Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	$21.25	12	$255.00
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$157.53	2	$315.06

Practice: 315 - Herbaceous Weed Control

Scenario: #2 - Chemical, Spot

Scenario Description:

Land unit on which weed control would be beneficial in order to set back the plant community succession, improve the ecological condition, and improve forage conditions for domestic livestock or wildlife. The practice entails the eradication of vegetation by use of weed treatment, either initial or retreatment using hand-carried equipment (such as a backpack and hand-sprayer) to apply chemicals, in order to eliminate noxious weeds, promote forage productivity, and improve ecological condition.

Before Situation:

Area consist of excessive stands of herbaceous weeds degrading health and vigor of native herbaceous species promoting noxious and invasive species and degrading wildlife habitat.

After Situation:

Herbaceous weeds are removed to achieve the desirable plant community based on species composition, structure, density, and canopy cover or height. Ecological site condition is progressing in an upward trend, hydrology and plant health and vigor is returning to near normal levels, and improved wildlife habitat.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $911.60 **Scenario Cost/Unit:** $45.58

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$34.05	1	$34.05
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	$28.07	4	$112.28
Materials						
Herbicide, 2,4-D	330	Broadleaf herbicide labeled for cropland and pasture. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$6.78	20	$135.60
Herbicide, Glyphosate	334	A broad-spectrum, non-selective systemic herbicide. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$15.63	20	$312.60
Herbicide, Imazapic	335	Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$12.62	20	$252.40
Mobilization						
Mobilization, very small equipment	1137	Equipment that is small enough to be transported by a pick-up truck with typical weights less than 3,500 pounds. Can be multiple pieces of equipment if all hauled simultaneously.	Each	$64.67	1	$64.67

Practice: 315 - Herbaceous Weed Control

Scenario: #3 - Chemical, Ground Light

Scenario Description:

Land unit on which weed control would be beneficial in order to set back the plant community succession, improve the ecological condition, and improve forage conditions for domestic livestock or wildlife. The practice entails the eradication of (herbaceous weeds) vegetation by use of weed treatment using ground equipment to apply low cost chemicals, in order to eliminate noxious weeds, promote forage productivity, and improve ecological condition.

Before Situation:

Area consist of excessive stands of herbaceous weeds degrading health and vigor of native herbaceous species promoting noxious and invasive species and degrading wildlife habitat.

After Situation:

Herbaceous weeds are removed to achieve the desirable plant community based on species composition, structure, density, and canopy cover or height. Ecological site condition is progressing in an upward trend, hydrology and plant health and vigor is returning to near normal levels, and improved wildlife habitat.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $494.03 **Scenario Cost/Unit:** $24.70

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$34.05	2	$68.10
Chemical, ground application	948	Chemical application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$5.32	20	$106.40
Materials						
Herbicide, 2,4-D	330	Broadleaf herbicide labeled for cropland and pasture. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$6.78	20	$135.60
Herbicide, Surfactant	1095	Surfactants reduce the surface tension of water to produce more uniform coverage and penetration of herbicides, and weed killers. Paraffin Based Petroleum Surfactant. Refer to WIN-PST for product names and active ingredients. Includes materials and shi	Acre	$1.32	20	$26.40
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$157.53	1	$157.53

Practice: 315 - Herbaceous Weed Control

Scenario: #4 - Chemical, Ground Medium

Scenario Description:

Land unit on which weed control would be beneficial in order to set back the plant community succession, improve the ecological condition, and improve forage conditions for domestic livestock or wildlife. The practice entails the eradication of (herbaceous weeds) vegetation by use of weed treatment using ground equipment to apply medium cost chemicals, in order to eliminate noxious weeds, promote forage productivity, and improve ecological condition.

Before Situation:

Area consist of excessive stands of herbaceous weeds degrading health and vigor of native herbaceous species promoting noxious and invasive species and degrading wildlife habitat.

After Situation:

Herbaceous weeds are removed to achieve the desirable plant community based on species composition, structure, density, and canopy cover or height. Ecological site condition is progressing in an upward trend, hydrology and plant health and vigor is returning to near normal levels, and improved wildlife habitat.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $876.43 **Scenario Cost/Unit:** $43.82

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$34.05	2	$68.10
Chemical, ground application	948	Chemical application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$5.32	20	$106.40
Materials						
Herbicide, 2,4-D	330	Broadleaf herbicide labeled for cropland and pasture. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$6.78	20	$135.60
Herbicide, Picloram	337	Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$19.12	20	$382.40
Herbicide, Surfactant	1095	Surfactants reduce the surface tension of water to produce more uniform coverage and penetration of herbicides, and weed killers. Paraffin Based Petroleum Surfactant. Refer to WIN-PST for product names and active ingredients. Includes materials and shi	Acre	$1.32	20	$26.40
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$157.53	1	$157.53

Practice: 315 - Herbaceous Weed Control

Scenario: #5 - Chemical, Ground Heavy

Scenario Description:

Land unit on which weed control would be beneficial in order to set back the plant community succession, improve the ecological condition, and improve forage conditions for domestic livestock or wildlife. The practice entails the eradication of (herbaceous weeds) vegetation by use of weed treatment using ground equipment to apply high cost chemicals, in order to eliminate noxious weeds, promote forage productivity, and improve ecological condition.

Before Situation:

Area consist of excessive stands of herbaceous weeds degrading health and vigor of native herbaceous species promoting noxious and invasive species and degrading wildlife habitat.

After Situation:

Herbaceous weeds are removed to achieve the desirable plant community based on species composition, structure, density, and canopy cover or height. Ecological site condition is progressing in an upward trend, hydrology and plant health and vigor is returning to near normal levels, and improved wildlife habitat.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $1,188.43 **Scenario Cost/Unit:** $59.42

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Chemical, ground application	948	Chemical application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$5.32	20	$106.40
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$34.05	2	$68.10
Materials						
Herbicide, Imazapyr	336	Pre and post-emergent, non-selective herbicide for control of undesirable vegetation in non-crop areas. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$41.50	20	$830.00
Herbicide, Surfactant	1095	Surfactants reduce the surface tension of water to produce more uniform coverage and penetration of herbicides, and weed killers. Paraffin Based Petroleum Surfactant. Refer to WIN-PST for product names and active ingredients. Includes materials and shi	Acre	$1.32	20	$26.40
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$157.53	1	$157.53

Practice: 315 - Herbaceous Weed Control

Scenario: #7 - Forestry, Broadcast Spray, Aerial or Ground

Scenario Description:

Treatment takes place in areas with grass or other herbaceous vegetation is competing with newly planted trees or shrubs. Area is covered in grass and other herbaceous weeds. Treatment is needed to ensure the successful establishment of desirable tree species. Areas to be treated using aerial application are above average in size to allow for the helicopter to operate efficiently or ground sprayers can be used. The resource concerns include: Watr Quality - contaminants chemicals; Air Quality - airborne chemical drift; Plant Condition - productivity health and vigor

Before Situation:

Desirable trees are receiving competition for water and nutrients from grasses and other weedy species. Typical sites have recently been planted with trees and they have an abundant coer of herbaeous vegetation. Herbaceous weed control is conducted soon after the tree seedlings have been planted to enhance their growth and survival.

After Situation:

Desirable vegetation is released from competing vegetation. The tupical tract size is approximately 40 acres, but larger and sometimes smaller tract sizes are common. After treatment, the trees are visible and the undesirable vegetation has been reduced providing the trees a better chance of becoming established. The herbaceous vegetation should be reduced and trees should be visible. The siae of the tract and location might determine the application to use but the primary goal is to release the newly established seedlings.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 40

Scenario Cost: $4,360.19 **Scenario Cost/Unit:** $109.00

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$34.05	6	$204.30
Chemical, aerial application, helicopter	1991	Chemical application performed by helicopter on forest only. Includes equipment, mobilization, and labor.	Acre	$30.83	20	$616.60
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	$28.07	8	$224.56
Tractor, agricultural, 60 HP	963	Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.	Hour	$21.48	20	$429.60
Labor						
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	$21.25	8	$170.00
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$37.30	4	$149.20
Materials						
Herbicide, Imazapyr	336	Pre and post-emergent, non-selective herbicide for control of undesirable vegetation in non-crop areas. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$41.50	30	$1,245.00
Herbicide, Sulfometuron-methyl	340	Used for the control of annual and perennial grasses and broad leaved weeds in non-crop land. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$38.78	30	$1,163.40
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$157.53	1	$157.53

Practice: 315 - Herbaceous Weed Control

Scenario: #8 - Forestry - Band Spraying

Scenario Description:

Treatment takes place in areas with grass or other herbaceous vegetation is competing with newly planted trees or shrubs. Area is covered in grass and other herbaceous weeds. Treatment is needed to ensure the successful establishment of desirable tree species. Areas to be treated using aerial application are above average in size to allow for the helicopter to operate efficiently or ground sprayers can be used. The resource concerns include: Watr Quality - contaminants chemicals; Air Quality - airborne chemical drift; Plant Condition - productivity health and vigor

Before Situation:

Desirable trees are receiving competition for water and nutrients from grasses and other weedy species. Typical sites have recently been planted with trees and they have an abundant coer of herbaeous vegetation. Herbaceous weed control is conducted soon after the tree seedlings have been planted to enhance their growth and survival.

After Situation:

Desirable vegetation is released from competing vegetation. The tupical tract size is approximately 20 acres, but larger and sometimes smaller tract sizes are common. After treatment, the trees are visible and the undesirable vegetation has been reduced providing the trees a better chance of becoming established. The band treatments can be distinguished from the broadcast treatments because only a strip of vegetation around the planted tree seedlings is treated. The band width can vary, but the entire tract is not treated. All chemicals will be used according to the label.

Scenario Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $1,551.25 **Scenario Cost/Unit:** $77.56

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	$28.07	8	$224.56
Chemical, ground application	948	Chemical application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$5.32	20	$106.40
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	$20.63	8	$165.04
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	$37.30	2	$74.60
Materials						
Herbicide, Sulfometuron-methyl	340	Used for the control of annual and perennial grasses and broad leaved weeds in non-crop land. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$38.78	8	$310.24
Herbicide, Sulfometuron & metsulfuron	344	A residual sulfonylurea herbicide that kills broadleaf weeds and some annual grasses. It is a systemic compound with foliar and soil activity. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$22.61	8	$180.88
Herbicide, Imazapyr	336	Pre and post-emergent, non-selective herbicide for control of undesirable vegetation in non-crop areas. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	Acre	$41.50	8	$332.00
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$157.53	1	$157.53